AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 9 lines 27-28 and page 10, lines 1-12 with the following paragraph:

After the formation of tunnel barrier 24, free layer 22 is formed over tunnel barrier layer 24. However, it is recognized that in an alternate embodiment the order of forming the layers could be reversed such that free layer 22 is formed below tunnel barrier layer 24. Free layer 22 is formed of a ferromagnetic material and typically has a thickness in the range of 10Å to 200Å. The magnetization direction of free layer 22 (M_P) is free to rotate in response to an external magnetic field. As with the prior art, free layer 22 also has a preferred magnetization direction due to the exchange coupling between pinned layer 26 and free layer 22. However, rather than having a positive exchange coupling, TMR stack 20 exhibits a negative exchange coupling between pinned ~~pined~~ layer 26 and free layer 22, as shown in FIG. 4. After TMR stack 20 has been formed, an anneal can be performed to establish the pinning of pinned layer 26 and also to improve the performance of the barrier layer. The anneal is typically performed at temperatures in the range of 100°C to 350°C